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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,426	03/29/2002	Juha Pihlaja	297-010894-US (PAR)	7015

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PERMAN & GREEN
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FAIRFIELD, CT 06824

EXAMINER	
HALIYUR, VENKATESH N	
ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/089,426	PIHLAJA, JUHA	
	Examiner	Art Unit	
	Venkatesh Haliyur	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 12/11/2006 has been considered. Therefore, the rejection of claims communicated via office action of 7/6/2006 has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Delprat et al and a newly found Lenzo reference.

2. Claims 1-7 are pending in the application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Delprat et al. [US Pat: 5,617,412] in view of Lenzo [US Pat: 6,556,830].

Regarding claims 1-2, Delprat et al. in the invention of "Frame/Multiframe Structure FDMA System and Corresponding Signal" disclosed a method for providing wireless point-to-multipoint connections having an access point **(base station, SB of Fig1)** using full-duplex mode and terminals **(mobile stations, SMs of Fig 1)** using half-duplex mode wherein that, **(col 6, lines 14-18)** each of a plurality of the terminals has an equipment identifier **(Fig4, unit1, unit 2, col 8,lines 11-19, Fig 1, SM11, SM22, col 6, lines 4-13)** each of said plurality of the terminals is arranged to classify itself as belonging to a first group of terminals **(group 21 of Fig 1)** or a second group **(group 22 of Fig 1)** of terminals based on said equipment identifier according to a predefined rule **(based on frequency, col 6, lines 4-33)**; and the access point is arranged to send a first broadcast message to said first group of terminals and a second broadcast message to said second group of terminals **(col 2, lines 43-47, col 3, lines 58-65)**, but fails to disclose that the access point **(base station)** is arranged to schedule the transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. However Lenzo disclosed in the invention of "Coverage Area Sectorization in Time Division Multiple Access/Frequency-Time Division Duplex Communications Systems" disclosed a method where base station **(access point)** is arranged to schedule the transmission period of one group of terminals to overlap with the second group of terminals in order to maintain synchronization **(Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-**

67, col 10, lines 1-9). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission and reception periods of first and second group terminals as taught by Lenzo in the system of Delprat et al. to enable access point to schedule transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. One is motivated as such to simultaneously schedule both listening and transmission periods of first group, second group terminals at the access point without loss of sychronization between the access point and the terminals belonging to first and second groups.

Regarding claim 3, Delprat et al. disclosed that access point of a point-to-multipoint wireless link system **(base station, SB of Fig 1)**, wherein that the access point is arranged to send a first broadcast message in a frame to a first group **(police department group)** of terminals and a second broadcast message in said frame to a second group of terminals **(fire department group) (col 3, lines 12-20)**, but fails to disclose that the access point is arranged to schedule the transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. However, Lenzo disclosed a method where base station **(access point)** is arranged to schedule the transmission period of one group of terminals to overlap with the second group of terminals in order to maintain synchronization **(Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-**

67, col 10, lines 1-9). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission and reception periods transmission and reception periods of first or second group terminals as taught by Lenzo in the system of Delprat et al. to enable access point to schedule transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. One is motivated as such in order to simultaneously schedule both listening and transmission periods of first group, second group terminals at the access point without loss of synchronization between the access point and the terminals belonging to first and second groups.

Regarding claim 4, Delprat et al. disclosed that terminal of a point-to-multipoint wireless link system, which terminal has an equipment identifier **(Fig4, unit1, unit 2, col 8,lines 11-19, Fig 1, SM11, SM22, col 6, lines 4-13)**, characterized in that the terminal is arranged to classify itself as belonging to a first group of terminals **(group 21 of Fig 1)** or a second group of terminals **(group 22 of Fig 1)** based on the equipment identifier according to a predefined rule **(based on frequency, col 6, lines 4-33)**; the terminal is arranged to receive a first broadcast message if it belongs to said first group **(first group, item 2_1 of Fig 1)** and a second broadcast message if it belongs to said second group **(second group, item 2_2 of Fig 1, col 6, lines 4-17)** but fails to disclose that the transmission period of the terminal is arranged to overlap at least partly with a

transmission period of said first broadcast message if it belongs to said second group. However, Lenzo disclosed a method where base station **(access point)** is arranged to schedule the transmission period of one group of terminals to overlap with the second group of terminals in order to maintain synchronization **(Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-67, col 10, lines 1-9)**. Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling overlapping transmission and reception periods transmission and reception periods of first or second group terminals as taught by Lenzo in the system of Delprat et al. to enable access point to schedule transmission period of at least one terminal of said first or second group to overlap at least partly with the transmission period of said first or second broadcast message. One is motivated as such in order to simultaneously schedule both listening and transmission periods of first group, second group terminals at the access point to without loss of synchronization between the access point and the terminals belonging to first and second groups.

Regarding claim 5, Delprat et al. disclosed wherein the terminal is arranged to perform the classification based on the value of the least significant bit of the identifier **(Fig 4, col 8, lines 11-24)**.

Regarding claim 6, Delprat et al. disclosed a method for providing wireless point-to-multipoint connections between an access point **(base station, SB of Fig1)** and a plurality of terminals **(mobile stations, SMs of Fig 1)**, wherein: the terminals are grouped into a first group **(groups 21 of Fig 1)** and a

second group **(groups 22 of Fig 1, col 6, lines 4-13)**, during a transmission frame, the access point sends a first broadcast message to terminals in the first group and a second broadcast message to terminals in the second group **(col 2, lines 43-47, col 3, lines 58-65)**, but fails to disclose that at least one of the terminals of the second group is scheduled to transmit during at least a part of the transmission period of said first broadcast message, However, Lenzo disclosed a method where base station **(access point)** is arranged to schedule the transmission period of one group of terminals to overlap partially with the second group of terminals in order to maintain synchronization **(Figs 4-7, col 7, lines 33-67, col 8, lines 1-19, col 9, lines 26-67, col 10, lines 1-9)**. Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of scheduling partially overlapping transmission and reception periods transmission and reception periods of first or second group of terminals as taught by Lenzo in the system of Delprat et al. to enable at least one of the terminals of the second group to schedule transmission during at least part of the transmission period of first broadcast message. One is motivated as such in order to overlap transmit periods of second group terminals with that of the transmission period of first broadcast message without the loss of synchronization between the access point and the terminals belonging to first and second groups.

Regarding claim 7, Delprat et al. disclosed wherein at least one of the terminals of the first group is scheduled to transmit during at least a part of the

transmission period of said second broadcast message (**col 6, lines 34-67, col 7, lines 1-34**).

Response to Arguments

5. Applicant's arguments, (see remarks) filed on 12/11/2006, with respect to the rejection(s) of claim(s) 1-7 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Delprat et al and Lenzo reference.

Conclusion

6. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached @ (571)-272-7493. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

Venkatesh Haliyur

Patent Examiner

VH 02/21/07

WING CHAN
SUPERVISORY PATENT EXAMINER